

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P332620-830

Luminaire Tested: **S124DIP-S795D1205U830-4F0-1E-UDD-D1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P332620-830
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1807-864-10,
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S124DIP-S795D1205U830-4F0-1E-UDD-D1
Description: DEFINE 4 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 795 LUMENS PER FOOT, DROP SATIN WHITE DIFFUSER
UPLIGHT 1205 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6984.4 lumens
Efficiency: N/A
Efficacy: 122.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 0.33' x L: 4' x H: 0.08')
CIE Type: General Diffuse

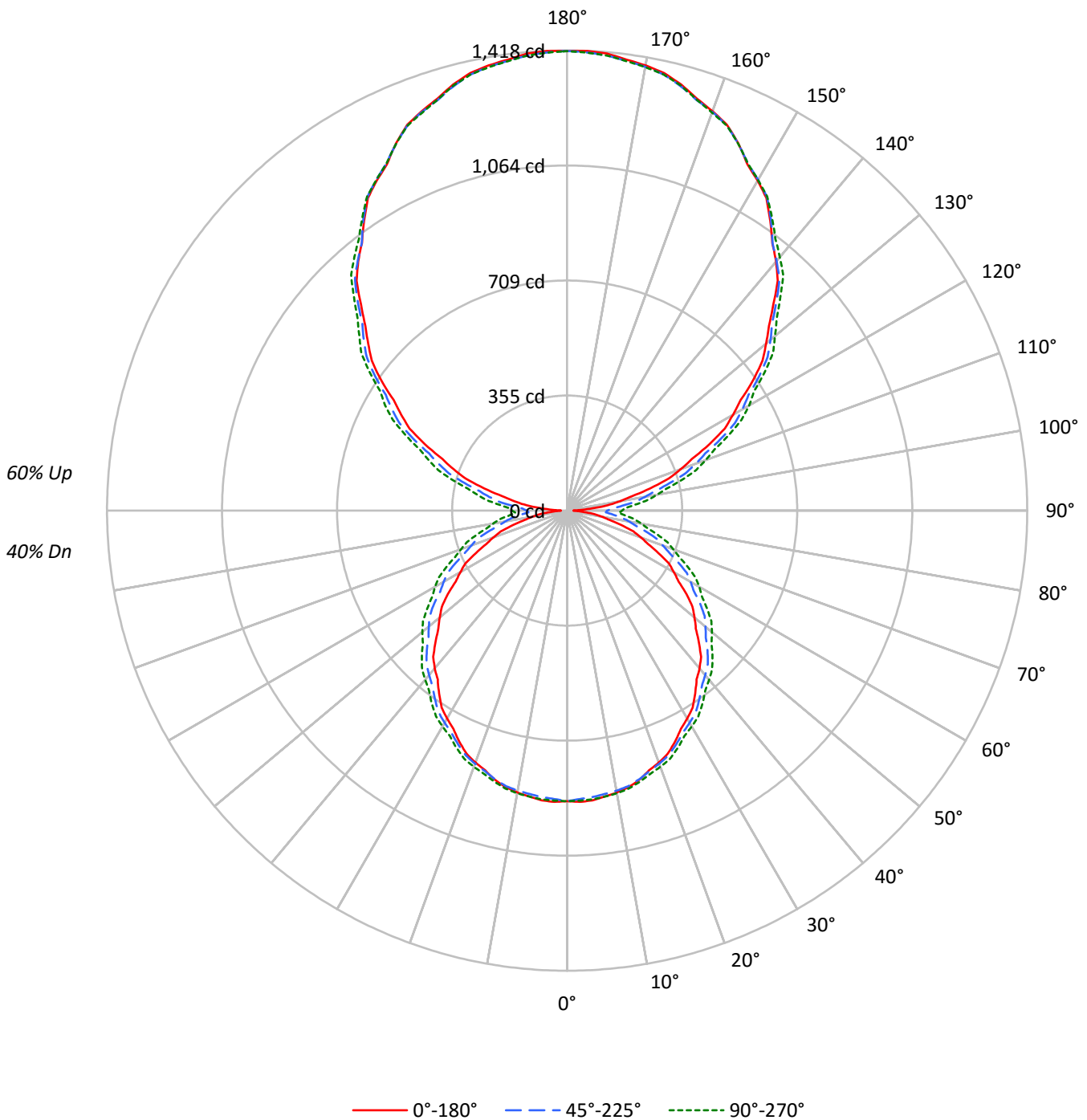
Input Watts (W): 56.9
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	105	105	105	105	96	96	96	96	78	78	78	62	62	62	47	47	47	40
1	95	90	86	82	86	82	79	75	67	65	62	53	52	50	41	39	38	32
2	86	78	72	66	78	71	66	61	58	54	51	46	43	41	35	33	32	26
3	78	68	61	55	71	62	56	51	51	46	42	41	37	34	31	29	26	22
4	71	60	52	46	65	55	48	43	45	40	36	36	32	29	27	25	23	19
5	65	54	45	39	59	49	42	36	40	35	31	32	28	25	25	22	19	16
6	60	48	40	34	54	44	37	31	36	31	26	29	25	22	22	19	17	14
7	55	43	35	29	50	39	32	27	33	27	23	26	22	19	20	17	15	12
8	51	39	31	26	47	36	29	24	30	24	20	24	20	17	19	16	13	11
9	48	35	28	23	43	33	26	21	27	22	18	22	18	15	17	14	12	10
10	45	32	25	20	40	30	23	19	25	20	16	20	16	14	16	13	11	9

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7228	7228	7228
5°	7250	7064	7083
10°	7205	6948	6943
15°	7141	6814	6777
20°	7044	6667	6616
25°	6934	6501	6439
30°	6815	6336	6256
35°	6681	6168	6097
40°	6573	6008	5930
45°	6413	5859	5787
50°	6278	5689	5636
55°	6138	5529	5459
60°	5920	5324	5298
65°	5683	5104	5098
70°	5394	4853	4868
75°	4992	4579	4659
80°	4540	4312	4453
85°	3980	4075	4334



TEST NUMBER: P332620-830

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.8	1.2
10°-20°	242.9	3.5
20°-30°	367.3	5.3
30°-40°	444.4	6.4
40°-50°	469.8	6.7
50°-60°	442.2	6.3
60°-70°	366.8	5.3
70°-80°	257.7	3.7
80°-90°	149.9	2.1
90°-100°	179.9	2.6
100°-110°	340.7	4.9
110°-120°	512.5	7.3
120°-130°	643.4	9.2
130°-140°	705.8	10.1
140°-150°	685.4	9.8
150°-160°	574.7	8.2
160°-170°	382.4	5.5
170°-180°	133.9	1.9
0°-30°	695.0	10.0
0°-40°	1139.4	16.3
0°-60°	2051.4	29.4
0°-90°	2825.8	40.5
90°-120°	1033.1	14.8
90°-150°	3067.7	43.9
90°-180°	4159.0	59.5
0°-180°	6984.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	895	895	895	895	895	
5°	896	893	886	894	893	85
15°	859	860	857	866	865	242
25°	786	792	795	806	807	362
35°	688	700	710	723	727	431
45°	573	593	612	628	634	443
55°	449	471	500	520	526	400
65°	311	343	377	401	410	308
75°	172	210	252	279	289	183
85°	53	95	140	169	180	57
90°	19	71	123	158	169	15
95°	79	122	170	200	210	83
105°	264	286	327	354	366	281
115°	483	494	522	542	549	477
125°	699	700	722	738	743	623
135°	899	905	912	926	929	695
145°	1091	1094	1095	1100	1101	682
155°	1248	1248	1247	1251	1247	574
165°	1359	1356	1354	1359	1356	383
175°	1414	1408	1407	1414	1407	134
180°	1416	1416	1416	1416	1416	



TEST NUMBER: P332620-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	898.5	898.0	897.4	896.9	896.4	895.4	893.9	892.5	891.1	889.7	890.9
5°	896.3	895.6	894.9	894.3	893.6	892.5	890.9	889.4	887.8	886.3	888.1
7.5°	888.6	888.3	887.9	887.5	887.0	886.2	885.0	883.6	882.3	881.1	883.1
10°	882.2	882.0	881.8	881.6	881.4	880.7	879.6	878.4	877.3	876.2	878.3
12.5°	873.5	873.4	873.4	873.3	873.3	872.9	872.1	871.3	870.5	869.8	871.7
15°	859.2	859.4	859.6	859.9	860.1	859.9	859.2	858.6	857.8	857.1	859.2
17.5°	839.7	840.4	841.0	841.8	842.4	842.6	842.5	842.4	842.3	842.2	844.2
20°	826.1	826.8	827.5	828.1	828.8	829.2	829.4	829.6	829.9	830.1	832.4
22.5°	810.9	811.7	812.6	813.4	814.3	814.9	815.3	815.7	816.1	816.5	818.7
25°	786.0	787.3	788.7	790.0	791.4	792.4	793.1	793.7	794.4	795.0	797.5
27.5°	758.4	760.3	762.2	764.2	766.2	767.7	768.7	769.7	770.7	771.8	774.0
30°	739.9	741.7	743.5	745.3	747.1	748.7	750.3	751.8	753.4	754.9	757.3
32.5°	719.8	722.0	724.2	726.2	728.4	730.3	732.1	733.8	735.6	737.3	740.1
35°	687.8	690.4	693.1	695.8	698.4	700.9	703.1	705.4	707.6	709.8	712.9
37.5°	655.4	658.6	661.7	664.7	667.8	670.7	673.4	676.2	679.0	681.7	684.9
40°	634.6	637.5	640.4	643.3	646.2	649.2	652.3	655.4	658.6	661.7	665.1
42.5°	610.6	613.8	617.1	620.3	623.6	627.0	630.7	634.3	638.0	641.6	645.4
45°	573.4	577.7	581.9	586.2	590.4	594.7	598.9	603.1	607.3	611.5	615.4
47.5°	538.0	542.3	546.7	551.1	555.4	560.1	565.0	569.9	574.8	579.7	583.6
50°	512.3	517.2	522.1	527.0	531.9	536.8	541.7	546.6	551.5	556.4	560.9
52.5°	486.6	491.5	496.4	501.3	506.2	511.5	517.1	522.7	528.4	534.0	538.4
55°	449.1	453.8	458.5	463.2	467.9	473.5	480.2	486.9	493.6	500.3	504.7
57.5°	407.3	413.0	418.9	424.6	430.4	436.6	443.3	449.9	456.6	463.2	468.4
60°	379.9	385.8	391.5	397.4	403.1	409.7	417.1	424.4	431.8	439.1	444.2
62.5°	353.5	359.9	366.2	372.5	378.8	385.7	393.0	400.4	407.7	415.1	420.2
65°	310.8	317.9	325.1	332.2	339.3	346.7	354.2	361.8	369.4	376.9	382.5
67.5°	269.7	277.3	284.8	292.4	300.0	307.8	315.9	324.0	332.2	340.3	345.9
70°	241.6	249.2	256.7	264.4	271.9	279.9	288.4	296.9	305.3	313.8	319.8
72.5°	214.3	222.1	229.9	237.6	245.3	253.7	262.8	271.7	280.8	289.7	295.6
75°	172.5	180.7	188.9	197.2	205.4	214.2	223.6	232.9	242.3	251.7	257.9
77.5°	133.4	142.0	150.8	159.6	168.2	177.6	187.4	197.2	207.0	216.8	223.1
80°	109.2	118.2	127.1	136.0	145.0	154.3	164.1	173.9	183.7	193.5	200.2
82.5°	85.2	94.4	103.8	113.0	122.2	131.9	141.7	151.5	161.3	171.1	177.9
85°	53.2	62.5	71.8	81.2	90.6	100.3	110.3	120.3	130.4	140.3	147.0
87.5°	30.3	40.0	49.6	59.2	68.8	78.7	88.9	99.1	109.1	119.3	126.0
90°	19.3	30.9	42.5	54.1	65.7	77.2	88.8	100.3	111.8	123.4	131.3
92.5°	38.6	49.8	60.9	71.9	83.0	94.1	105.0	115.9	126.9	137.8	145.0
95°	78.7	88.3	97.8	107.4	116.9	127.1	137.9	148.7	159.6	170.4	177.2
97.5°	126.6	134.7	142.8	150.8	158.9	168.4	179.6	190.6	201.6	212.6	219.3
100°	164.4	171.1	177.9	184.6	191.4	200.2	211.1	222.0	232.9	243.7	250.2
102.5°	204.6	210.1	215.6	221.0	226.5	234.5	245.0	255.5	266.0	276.5	283.0
105°	264.2	268.9	273.5	278.2	283.0	289.9	299.2	308.4	317.5	326.8	333.1
107.5°	328.6	332.5	336.5	340.4	344.4	350.3	358.3	366.2	374.1	382.1	388.2
110°	371.6	375.2	378.8	382.4	386.0	391.5	399.2	406.7	414.2	421.8	426.4



TEST NUMBER: P332620-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	416.3	419.1	422.1	424.9	427.7	432.7	439.7	446.7	453.7	460.7	465.5
115°	483.4	485.5	487.5	489.5	491.4	495.8	502.5	509.1	515.8	522.4	527.1
117.5°	547.6	549.0	550.4	551.9	553.3	557.0	563.4	569.7	576.0	582.3	586.1
120°	589.7	591.4	593.0	594.7	596.3	600.0	605.8	611.5	617.2	622.9	626.2
122.5°	634.4	635.0	635.5	636.0	636.5	639.7	645.5	651.2	657.0	662.7	666.4
125°	699.4	699.2	698.9	698.7	698.5	701.1	706.3	711.7	717.0	722.4	726.0
127.5°	758.9	759.5	760.0	760.4	761.0	763.2	767.0	771.0	774.9	778.7	782.2
130°	800.2	800.7	801.3	801.7	802.2	804.3	807.9	811.4	814.9	818.5	822.1
132.5°	843.1	843.5	843.8	844.0	844.3	845.8	848.5	851.2	853.8	856.5	859.8
135°	898.8	900.3	901.7	903.2	904.7	906.2	907.8	909.3	910.9	912.5	915.5
137.5°	960.6	961.1	961.5	962.0	962.4	963.3	964.4	965.5	966.7	967.8	970.4
140°	1001.7	1002.0	1002.3	1002.6	1002.9	1003.1	1003.3	1003.5	1003.7	1004.0	1006.6
142.5°	1038.7	1039.1	1039.5	1040.0	1040.4	1040.5	1040.2	1039.8	1039.5	1039.2	1041.7
145°	1090.6	1091.3	1092.0	1092.8	1093.5	1094.1	1094.3	1094.6	1094.8	1095.0	1096.2
147.5°	1142.3	1143.2	1144.2	1145.1	1146.0	1146.4	1146.2	1146.0	1145.8	1145.7	1145.7
150°	1173.7	1174.5	1175.3	1176.0	1176.8	1177.1	1177.1	1177.1	1177.1	1177.1	1177.1
152.5°	1202.8	1203.3	1203.8	1204.4	1204.9	1205.3	1205.5	1205.7	1205.9	1206.1	1206.6
155°	1248.3	1248.3	1248.3	1248.3	1248.3	1248.2	1248.0	1247.7	1247.5	1247.3	1248.2
157.5°	1286.9	1286.5	1286.0	1285.6	1285.2	1284.9	1284.9	1284.8	1284.8	1284.7	1285.4
160°	1309.7	1309.5	1309.2	1308.9	1308.7	1308.4	1308.2	1308.0	1307.7	1307.5	1308.2
162.5°	1330.7	1330.0	1329.5	1328.8	1328.1	1327.8	1327.5	1327.3	1327.0	1326.7	1328.0
165°	1359.0	1358.2	1357.4	1356.8	1356.0	1355.4	1354.9	1354.4	1354.0	1353.5	1354.9
167.5°	1380.6	1379.6	1378.6	1377.5	1376.6	1376.0	1376.1	1376.1	1376.2	1376.2	1377.7
170°	1392.9	1391.7	1390.4	1389.2	1388.0	1387.5	1387.8	1388.0	1388.3	1388.6	1390.0
172.5°	1401.7	1400.6	1399.6	1398.5	1397.6	1397.0	1397.1	1397.2	1397.2	1397.3	1398.9
175°	1413.7	1412.5	1411.3	1410.0	1408.8	1408.1	1407.9	1407.6	1407.4	1407.1	1408.8
177.5°	1417.7	1416.6	1415.7	1414.8	1413.7	1413.2	1413.2	1413.2	1413.2	1413.2	1414.7
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9



TEST NUMBER: P332620-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	895.3	895.3	895.3	895.3	895.3	895.3	895.3	895.3
2.5°	892.1	893.4	894.7	895.2	895.0	894.8	894.7	894.5
5°	889.9	891.6	893.3	894.2	893.9	893.7	893.5	893.2
7.5°	885.0	887.0	889.1	889.9	889.8	889.5	889.3	889.1
10°	880.2	882.2	884.3	885.1	885.0	884.7	884.5	884.3
12.5°	873.5	875.3	877.1	878.0	878.0	877.9	877.9	877.8
15°	861.2	863.2	865.2	866.1	865.9	865.6	865.4	865.2
17.5°	846.2	848.3	850.4	851.3	851.1	850.9	850.7	850.6
20°	834.5	836.8	839.1	840.2	840.2	840.2	840.2	840.2
22.5°	821.0	823.1	825.4	826.7	827.1	827.4	827.7	828.1
25°	799.9	802.4	804.8	806.2	806.3	806.6	806.8	807.1
27.5°	776.3	778.5	780.9	782.1	782.4	782.7	783.0	783.2
30°	759.8	762.2	764.7	766.2	766.7	767.0	767.5	768.0
32.5°	742.9	745.7	748.5	750.2	750.5	751.0	751.5	752.0
35°	716.0	719.2	722.3	724.2	724.8	725.5	726.2	726.9
37.5°	688.1	691.3	694.4	696.4	697.0	697.8	698.4	699.2
40°	668.4	671.8	675.0	677.1	678.1	678.9	679.9	680.7
42.5°	649.0	652.7	656.4	658.6	659.3	660.1	660.8	661.5
45°	619.2	622.9	626.7	629.1	630.3	631.4	632.5	633.6
47.5°	587.5	591.4	595.4	597.9	599.4	600.7	602.0	603.3
50°	565.3	569.8	574.2	577.1	578.4	579.9	581.2	582.5
52.5°	542.9	547.3	551.8	554.7	556.0	557.3	558.6	560.1
55°	509.2	513.7	518.1	521.0	522.4	523.7	525.0	526.3
57.5°	473.8	479.1	484.4	487.7	488.9	490.1	491.4	492.7
60°	449.4	454.5	459.6	463.1	464.9	466.7	468.4	470.2
62.5°	425.3	430.5	435.5	439.0	440.8	442.6	444.3	446.1
65°	388.1	393.7	399.3	402.9	404.7	406.5	408.2	410.0
67.5°	351.6	357.2	362.9	366.6	368.3	370.0	371.8	373.5
70°	325.8	331.9	337.9	341.7	343.2	344.8	346.3	347.9
72.5°	301.4	307.3	313.1	316.9	318.6	320.4	322.1	323.9
75°	264.1	270.3	276.6	280.7	282.8	284.7	286.7	288.7
77.5°	229.4	235.7	242.0	246.3	248.5	250.5	252.7	254.9
80°	206.9	213.6	220.3	224.4	226.2	228.0	229.8	231.6
82.5°	184.7	191.6	198.5	202.9	204.8	206.8	208.8	210.8
85°	153.7	160.4	167.1	171.5	173.8	176.0	178.2	180.5
87.5°	132.8	139.6	146.3	150.7	152.8	154.9	156.9	158.9
90°	139.2	147.1	155.0	160.1	162.4	164.7	166.9	169.2
92.5°	152.1	159.3	166.5	171.1	173.1	175.2	177.3	179.4
95°	183.9	190.7	197.5	201.8	203.8	205.9	207.8	209.8
97.5°	226.0	232.8	239.5	243.8	245.7	247.6	249.6	251.5
100°	256.7	263.3	269.8	273.8	275.3	276.9	278.4	280.0
102.5°	289.5	296.1	302.6	306.8	308.8	310.7	312.6	314.5
105°	339.4	345.7	351.9	356.4	358.9	361.5	363.9	366.5
107.5°	394.4	400.6	406.7	410.6	412.2	413.7	415.3	416.8
110°	431.0	435.7	440.4	443.9	446.4	448.9	451.5	453.9



TEST NUMBER: P332620-830

CATALOG NUMBER: S124DIP-S795D1205U830-4F0-1E-UDD-D1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	470.4	475.2	480.1	483.5	485.4	487.4	489.3	491.3
115°	531.7	536.3	541.0	543.9	545.3	546.6	547.9	549.2
117.5°	589.8	593.7	597.5	600.0	601.3	602.7	604.0	605.2
120°	629.4	632.6	635.9	638.7	640.9	643.2	645.5	647.7
122.5°	670.0	673.6	677.2	679.4	680.1	680.9	681.6	682.3
125°	729.8	733.6	737.4	739.6	740.5	741.3	742.2	743.0
127.5°	785.8	789.3	792.9	795.1	796.3	797.4	798.5	799.7
130°	825.6	829.1	832.6	834.5	834.9	835.3	835.7	836.0
132.5°	863.2	866.5	869.9	872.0	873.0	873.9	874.9	875.8
135°	918.6	921.7	924.7	926.6	927.2	927.8	928.4	929.0
137.5°	973.1	975.7	978.3	980.2	981.5	982.8	984.0	985.3
140°	1009.3	1011.9	1014.6	1016.3	1017.2	1018.0	1019.0	1019.8
142.5°	1044.1	1046.6	1049.1	1050.8	1051.7	1052.6	1053.5	1054.3
145°	1097.2	1098.3	1099.4	1100.0	1100.2	1100.3	1100.5	1100.7
147.5°	1145.6	1145.6	1145.6	1145.8	1146.2	1146.7	1147.2	1147.6
150°	1177.1	1177.1	1177.1	1177.0	1176.8	1176.6	1176.3	1176.1
152.5°	1207.2	1207.9	1208.4	1208.4	1207.8	1207.1	1206.5	1205.9
155°	1249.2	1250.2	1251.1	1251.1	1250.2	1249.2	1248.2	1247.3
157.5°	1286.2	1286.9	1287.6	1287.6	1286.8	1285.9	1285.1	1284.3
160°	1308.9	1309.7	1310.4	1310.1	1308.9	1307.7	1306.6	1305.3
162.5°	1329.4	1330.7	1332.0	1332.1	1330.9	1329.6	1328.4	1327.2
165°	1356.4	1357.8	1359.3	1359.5	1358.6	1357.6	1356.6	1355.7
167.5°	1379.1	1380.6	1382.1	1382.1	1380.5	1379.0	1377.5	1376.0
170°	1391.5	1392.9	1394.4	1394.2	1392.5	1390.8	1389.1	1387.4
172.5°	1400.6	1402.2	1403.9	1403.9	1402.1	1400.4	1398.7	1397.0
175°	1410.5	1412.2	1413.9	1413.9	1412.2	1410.5	1408.8	1407.1
177.5°	1416.0	1417.4	1418.7	1418.6	1417.0	1415.5	1413.9	1412.4
180°	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9	1415.9

(END OF REPORT)